Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 2026

COMPARATIVE EFFECTS OF WOBBLE BOARD AND CROSSFIT TRAINING IN ATHLETES WITH CHRONIC ANKLE INSTABILITY

Protocol summary

Study aim
To compare effects of Wobble board and CrossFit training on dynamic balance and chronic ankle instability in athletes

Design
A Randomized clinical trial

Settings and conduct
Pakistan Sports Board (PSB).

Participants/Inclusion and exclusion criteria
participants: 34 INCLUSION CRITERIA age ranging from 18 to 40 years perform cardiovascular or resistance training for at least 1.5 hours per week a previous ankle sprain at least 6 months before the study recurrent feeling of “giving way.” a score of 25 or less on the CAIT(cumberland ankle instability tool) to confirm current subjective ankle-joint instability EXCLUSION CRITERIA self-reported vestibular or balance-related dysfunction an acute ankle sprain in the previous 6 weeks, recent surgery(knee, hip, ankle) being a habitual CrossFit practitioner

Intervention groups
The participants will be divided into two groups ,Group A and Group B. Group A will receive wobble board training exercises (standing on board and moving farword, backword and side to side. And standing on one leg (effected side) and Group B will receive crossFit training program(such as a squat or burpees, where as others required specific equipment such as barbells, kettle-bells, or medicine balls).The participants will perform exercise for 6 weeks

Main outcome variables
Cumberland ankle instability and star excursion balance tool will be used to assess chronic ankle instability and dynamic balance

General information

Reason for update

Acronym

IRCT registration information
IRCT registration number: **IRCT20231103059941N1**
Registration date: **2023-11-15, 1402/08/24**
Registration timing: **prospective**

Last update: **2023-11-15, 1402/08/24**
Update count: **0**

Registration date
2023-11-15, 1402/08/24

Registrant information

Name
Nida Shabbir

Name of organization / entity
Riphah International university, Pakistan

Country
Pakistan

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+92 301 4857099

Email address
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Recruitment status
Recruitment complete

Funding source

Expected recruitment start date
2023-12-06, 1402/09/15

Expected recruitment end date
2024-01-25, 1402/11/05

Actual recruitment start date
empty

Actual recruitment end date
empty

Trial completion date
empty

Scientific title
COMPARATIVE EFFECTS OF WOBBLE BOARD AND CROSSFIT TRAINING IN ATHLETES WITH CHRONIC ANKLE INSTABILITY

Public title
Effects of Wobble board and CrossFit training in athletes with ankle instability
Purpose
Treatment
Inclusion/Exclusion criteria
Inclusion criteria:
Age ranging from 18 to 40 years. Perform cardiovascular or resistance training for at least 1.5 hours per week. A previous ankle sprain at least 6 months before the study. Recurrent feeling of “giving way.” A score of 25 or less on the CAIT(cumberland ankle instability tool) to confirm current ankle-joint instability.
Exclusion criteria:
Self-reported vestibular or balance-related dysfunction. An acute ankle sprain in the previous 6 weeks. Recent surgery(knee, hip, ankle). Being a habitual CrossFit practitioner.
Age
From **18 years** old to **40 years** old
Gender
Both

Phase
N/A
Groups that have been masked
No information
Sample size
Target sample size: **34**
Randomization (investigator's opinion)
Randomized
Randomization description
Simple Randomization (Lottery Method)
Blinding (investigator's opinion)
Not blinded
Blinding description
Placebo
Not used
Assignment
Parallel
Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee
Name of ethics committee
Research& Ethical Committee
Street address
25 Raza Saeed Rd, Bhabra Block M Gulberg III, Lahore, Punjab 25-M Block, Lahore
City
Lahore
Postal code
54660
Approval date
2023-08-03, 1402/05/12
Ethics committee reference number
REC/RCR&AHS/23/0449

Health conditions studied

1

Description of health condition studied
Chronic Ankle Instability
ICD-10 code
ICD-10 code description

Primary outcomes

1

Description
Chronic ankle instability
Timepoint
0-6 weeks (before and after intervention)
Method of measurement
Cumberland Ankle Instability Tool (CAIT)

Secondary outcomes

1

Description
Dynamic Balance
Timepoint
0-6 weeks (before and after intervention)
Method of measurement
Star Excursion Balance Test (SEBT)

Intervention groups

1

Description
Intervention group 1(WOBBLE BOARD TRAINING): The wobble board is a circular platform (30 inches) with different-sized domes that screw into the bottom of the board to make balance exercises more or less challenging. Participants will be placed near a wall and allowed to touch it with their fingertips only for any means of stability. 1-legged stance will be performed on the board, standing on board and moving forward, backward, and side to side and standing on one leg (affected side), and then clockwise and counterclockwise rotations of the rim will be completed. The participants will perform exercises for 6 weeks and pre and post-measurements will be recorded.
Category
Treatment - Other

2

Description
Intervention group 2 (CROSSFIT TRAINING): The session will be divided into 3 parts: a warm-up period, a principal training phase (which is known in CrossFit as the Workout of the Day), and a cool-down aimed at easing

recovery after the effort. The warm-up period will consist of cardiovascular activity, dynamic stretching, and progressive-load strength exercises. The main portion of the training session will consist of exercises to address strength, endurance, agility, and functional mobility. The difficulty level of each exercise will be controlled by a certified instructor who monitors the participant's form. Some exercises are based on body weight, such as a squat or burpees, whereas others require specific equipment such as barbells, kettlebells, or medicine balls. The final part of each session will consist of slow cardiovascular activity and foam rolling. The participants will perform exercises for 6 weeks and pre and post-measurements will be recorded for both study groups.

Category
Treatment - Other

Recruitment centers

1

Recruitment center

Name of recruitment center
Pakistan Sports Board (PSB)
Full name of responsible person
Nida Shabbir
Street address
Pakistan Sports Board, Qazafi Stadium, Lahore
City
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54810
Phone
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Sponsors / Funding sources

1

Sponsor

Name of organization / entity
Riphah International University, Lahore
Full name of responsible person
Dr. Muhammad Hashim
Street address
Riphah International university,25 Raza Saeed Rd, Bhabra Block M Gulberg III, Lahore, Punjab 25-M Block, Lahore, 54660
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Email
Muhammad.hashim@ripha.edu.pk
Web page address
https://www.riphah.edu.pk/lahore/

Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source
Riphah International University, Lahore
Proportion provided by this source
100
Public or private sector
Private
Domestic or foreign origin
Domestic
Category of foreign source of funding
empty
Country of origin
Type of organization providing the funding
Academic

Person responsible for general inquiries

Contact

Name of organization / entity
Riphah International University, Lahore
Full name of responsible person
Nida Shabbir
Position
Student
Latest degree
Medical doctor
Other areas of specialty/work
Physiotherapy
Street address
Ripha International University,25 Raza Saeed Rd, Bhabra Block M Gulberg III, Lahore, Punjab 25-M Block, Lahore
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Person responsible for scientific inquiries

Contact

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Full name of responsible person
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Position
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Other areas of specialty/work
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Person responsible for updating data

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Sharing plan

Deidentified Individual Participant Data Set (IPD)
Undecided - It is not yet known if there will be a plan to make this available
Study Protocol
Undecided - It is not yet known if there will be a plan to make this available
Statistical Analysis Plan
Undecided - It is not yet known if there will be a plan to make this available
Informed Consent Form
Undecided - It is not yet known if there will be a plan to make this available
Clinical Study Report
Undecided - It is not yet known if there will be a plan to make this available
Analytic Code
Undecided - It is not yet known if there will be a plan to make this available
Data Dictionary
Undecided - It is not yet known if there will be a plan to make this available